

Claims

1. (Previously Presented) A dynamic structural dimple panel, comprising:
a dimple layer having a plurality of dimples extending from one side of the dimple layer, said dimples being spaced from one another and not touching, said dimple layer absorbing, storing, dissipating or distributing energy to make said dimple layer compliant;
and

a reinforcing layer being configured to connect with the dimples of the dimple layer, said reinforcing layer connected to said dimple layer by said dimples, the compliance of said dimple layer accommodating loading of said panel to distribute stresses placed on the connection of said dimples.

2. (Previously Presented) A dynamic structural dimple panel, comprising:
a dimple layer having a plurality of dimples extending from one side of the dimple layer, said dimples being spaced from one another and not touching, said dimple layer absorbing, storing, dissipating or distributing energy to make said dimple layer compliant;
and

a reinforcing layer being configured to connect with the dimples of the dimple layer, said reinforcing layer connected to said dimple layer by said dimples, the compliance of said dimple layer accommodating loading of said panel to distribute stresses placed on the connection of said dimples, said dimple layer being a memory material which allows a size of a passage and/or a distance between the reinforcing layer and the dimple layer to be changed when the memory material undergoes a change in temperature.

3. (Withdrawn) A dynamic structural dimple panel, comprising:
a dimple layer having a plurality of dimples extending from one side of the dimple layer, said dimples being spaced from one another and not touching, said dimple layer absorbing, storing, dissipating or distributing energy to make said dimple layer compliant;

a reinforcing layer being configured to connect with the dimples of the dimple layer, said reinforcing layer connected to said dimple layer by said dimples, the compliance of said dimple layer accommodating loading of said panel to distribute stresses placed on the connection of said dimples; and

strand material routed through said layers to mechanically interlock the layers.

4. (Withdrawn) A dynamic structural dimple panel, comprising:

a dimple layer having a plurality of dimples extending from one side of the dimple layer, said dimples being spaced from one another and not touching, said dimple layer absorbing, storing, dissipating or distributing energy to make said dimple layer compliant;

a reinforcing layer being configured to connect with the dimples of the dimple layer, said reinforcing layer connected to said dimple layer by said dimples, the compliance of said dimple layer accommodating loading of said panel to distribute stresses placed on the connection of said dimples, wherein at least one of the dimples has an opening therethrough and at least one of the reinforcing layers includes an extension extending through the opening.

5. (Previously Presented) A multilayer dimple panel, comprising:

a dimple layer having a plurality of first dimples extending from a first side thereof and a plurality of second dimples extending from a second side thereof, the first and second dimples being misaligned from one another and non-touching, said dimple layer being compliant;

a first reinforcing layer connected to said dimple layer; and

a second reinforcing layer connected to said dimple layer, the compliance of said dimple layer accommodating loading of said multilayer dimple panel to distribute stresses placed on the connection of said dimples.

6. (Previously Presented) A multilayer dimple panel, comprising:
a dimple layer having a plurality of first dimples extending from a first side thereof and a plurality of second dimples extending from a second side thereof, the first and second dimples being misaligned from one another and non-touching, said dimple layer being compliant;
a first reinforcing layer connected to said dimple layer; and
a second reinforcing layer connected to said dimple layer, the compliance of said dimple layer accommodating loading of said multilayer dimple panel to distribute stresses placed on the connection of said dimples, said dimple layer being a memory material which allows a size of a passage and/or a distance between both the first and second reinforcing layers and the dimple layer to be changed when the memory material undergoes a change in temperature.